

PATENT COOPERATION TREATY

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INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/NL2006/050123

International filing date (day/month/year)
23.05.2006

Priority date (day/month/year)
24.05.2005

International Patent Classification (IPC) or both national classification and IPC
INV. H04R25/00 G02C11/06 H02J7/02 H05K5/00

Applicant
VARIBEL B.V.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☒ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☒ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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this opinion

see form
PCT/ISA/210

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/NL2006/050123

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:

- ☒ the international application in the language in which it was filed
- ☐ a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).

2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material:

- ☐ a sequence listing
- ☐ table(s) related to the sequence listing

b. format of material:

- ☐ on paper
- ☐ in electronic form

c. time of filing/furnishing:

- ☐ contained in the international application as filed.
- ☐ filed together with the international application in electronic form.
- ☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/NL2006/050123

Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of

☐ the entire international application

☒ claims Nos. 73

because:

☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international search (*specify*):

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed (*specify*):

☒ no international search report has been established for the whole application or for said claims Nos. 73

☐ a meaningful opinion could not be formed without the sequence listing; the applicant did not, within the prescribed time limit:

☐ furnish a sequence listing on paper complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Searching Authority in a form and manner acceptable to it.

☐ furnish a sequence listing in electronic form complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Searching Authority in a form and manner acceptable to it.

☐ pay the required late furnishing fee for the furnishing of a sequence listing in response to an invitation under Rules 13~~ter~~.1(a) or (b).

☐ a meaningful opinion could not be formed without the tables related to the sequence listings; the applicant did not, within the prescribed time limit, furnish such tables in electronic form complying with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions, and such tables were not available to the International Searching Authority in a form and manner acceptable to it.

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in electronic form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.

☐ See Supplemental Box for further details

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/NL2006/050123

Box No. IV Lack of unity of invention

1. ☒ In response to the invitation (Form PCT/ISA/206) to pay additional fees, the applicant has, within the applicable time limit:
- ☒ paid additional fees
 - ☐ paid additional fees under protest and, where applicable, the protest fee
 - ☐ paid additional fees under protest but the applicable protest fee was not paid
 - ☐ not paid additional fees
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rule 13.1, 13.2 and 13.3 is
- ☐ complied with
 - ☒ not complied with for the following reasons:
see separate sheet
4. Consequently, this report has been established in respect of the following parts of the international application:
- ☐ all parts.
 - ☒ the parts relating to claims Nos. 1-22, 66-71, 72

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	<u>1-22, 66-71</u>
	No: Claims	<u>72</u>
Inventive step (IS)	Yes: Claims	<u>1-22</u>
	No: Claims	<u>66-71, 72</u>
Industrial applicability (IA)	Yes: Claims	<u>1-22, 66-71, 72</u>
	No: Claims	

2. Citations and explanations

see separate sheet

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/NL2006/050123

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item IV Lack of unity of invention.

1. Prior art.

The following documents are referred to in this communication; the numbering will be adhered to in the rest of the procedure:

D1: WO9711574

D2: US3119903

D3: US3825700

D6: US2003/0156725

2. Lack of unity, R. 13.1 PCT.

The application does not fulfil the requirements with respect to unity of the invention for the following reasons.

- 2.1** There are 12 independent claims: 1 (apparatus), 17 (apparatus), 23 (apparatus), 24 (apparatus), 35 (apparatus), 37 (apparatus), 48 (apparatus), 61 (method), 65 (apparatus), 66 (method), 69 (apparatus) and 72 (method).

With respect to claim 72, the only technical subject matter contained in this claim is the provision of a hearing-aid glasses frame with lenses. For obvious reasons, this subject matter is not new, Art. 33(2) PCT.

- 2.2** For the assessment of unity, the remaining 11 independent claims (1, 17, 23, 24, 35, 37, 48, 61, 65, 66, 69) must be taken into consideration.

The common concept linking together the group of claims 1 and 17 with any of the other independent claims concerns at most a glasses temple which is connected to electric components (e.g. of a hearing aid). This common concept is, however, not new, Art. 33(2) PCT, with respect to D1 or D6. These documents show a hearing-aid/glasses arrangement in which a pair of earpieces can be connected to a pair of eyeglass temples (D1: Fig. 8; p. 18, l. 13 - p. 9, l. 10 | D6: para. [0014] and [0034]-[0037]).

The common concept linking together claim 23 and any of the other independent

claims concerns at most a connector housing which is designed to be attached to an earpiece. Such a connector housing is well-known from D2 (Fig. 2, connector to earpiece 164).

The common concept linking together claim 24 and any of independent claim 48, the group of claims 61 and 65, claim 66 or claim 69 concerns at most a glasses temple with a chargeable battery, which is well-known in the art, see e.g. D3 (col. 3, l. 15-30).

The common concept linking together the group of claims 35 and 37 with any of independent claim 48, the group of claims 61 and 65, claim 66 or claim 69 concerns at most a hearing aid glasses arrangement with a chargeable battery, which is well-known in the art, see e.g. D3 (col. 3, l. 15-30).

The common concept linking together independent claim 48 and any one of the group of claims 61 and 65, claim 66 or claim 69 concerns at most a hearing aid glasses arrangement, which is well-known in the art.

The common concept linking together the group of claims 61 and 65 with either one of claim 66 or claim 69 concerns at most a hearing aid, which is well-known in the art.

2.3 Hence, the examining division considers that the following separate inventions, making a contribution over the prior-art documents D1, D2, D3 or D6, are not so linked as to form a general inventive concept:

- i) claims 1-22
a first and a second connector housing of a connector assembly for connecting an earpiece to a glasses temple are connected via magnetic contact members which allow an electrical current to flow between them.
Object: allow for a disconnectable mechanical connection between earpiece and glasses temple which also provides for a reliable electrical connection (see also description p. 1, l. 32 - p. 2, l. 14 and p. 10, l. 25-32).
- ii) claim 23
a speaker is resiliently connected to a connector housing via two resilient

sleeves.

Object: reduce mechanical feedback (see also description p. 16, l. 1-15).

iii) claims 24-47

a cradle set having a transformer to charge the batteries of the hearing-aid glasses, which cradle set is adapted to receive a temple of the hearing-aid glasses.

Object: make the charging process of hearing-aid glasses having rechargeable batteries easier (see also description p. 3, l. 1-5).

iv) claims 48-60

the glasses temple comprises a metal plate.

Object: to protect the electric components of the hearing-aid glasses (see also description p. 4, l. 4-12).

v) claims 61-65

update of the programming of hearing-aid glasses via telecommunication devices.

Object: allow to spread available updates of hearing-aid programs in an easy way (see also description p. 4, l. 14-18).

vi) claims 66-71

derivation of commands in a hearing aid with a rechargeable battery from a charging voltage.

Object: provide for an easy means to restart a rechargeable hearing aid (see also description p. 30, l. 10-20).

None of the inventions i)-vi) as listed above has a special technical feature which is the same as that of any other one of the inventions i)-vi). A comparison of the objects listed above and associated to each one of the inventions i)-vi) shows that there is no common or corresponding technical effect between the inventions, so that the special technical features of each one of the inventions i)-vi) fail to demonstrate a correspondence with the special technical features of any other one of the inventions i)-vi), in disagreement with the requirements of R. 13.1 and 13.2 PCT. Hence there is

lack of unity, R. 13.1 PCT.

Re Item V

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

I. Negative opinion with respect to independent claim 72.

Concerning independent claim 72 the only technical subject matter contained in this claim is the provision of a hearing-aid glasses frame with lenses. For obvious reasons this subject matter is not new, Art. 33(2) PCT.

II. Positive opinion with respect to claims 1-22 (invention i)).

1. Reference is made to the following documents:

D1: WO 97/11574
D2: US 3 119 903
D3: US 3 825 700
D4: US 2005/074137
D5: US 5 327 178
D6: US 2003/156725
D7: WO 97/05673
D8: WO 03/084004

2. Independent claims 1 and 17 of the application relate to a disconnectable connection between an earpiece of a hearing aid and a glasses temple.

3.1 The document D1 is regarded as being the closest prior art to the subject matter of independent claims 1 (apparatus) and 17 (apparatus). This document shows a hearing-aid/glasses arrangement in which a pair of earpieces can be connected in a disconnectable way to a pair of eyeglass temples (Fig. 8; p. 18, l. 13 - p. 9, l. 10).

3.2 The subject matter of claims 1 and 17 differ from the hearing aid glasses of D1 in that the claimed connector assembly comprises magnetic contact members which allow

an electrical current to flow between them. In the configuration of D1 (see p. 19, I. 1-10), the connection between earpieces and temples can be made via a magnet but there no disclosure that this connection allows an electrical current to flow.

- 3.3 The subject matter of claims 1 and 17 is therefore new, Art. 33(2) PCT.
- 3.4 The problem solved by the present application can be formulated as how to provide for a mechanical connection which also ensures a proper electrical contact.
- 3.5 The solution which is specified in claims 1 and 17 in order to solve this problem is inventive, Art. 33(3) PCT, for the reason that none of the documents cited in the international search report points in the direction of combining the features as mentioned in point 3.2. In particular:

In D1 itself or in D4 there is no incentive to provide for the possibility of letting an electrical current flow through the magnetic contacts because all electronic components are accommodated in the behind-the-ear module of the hearing-aid temples combination.

In D2 or D3 the skilled person would refrain from replacing the mechanical connection by means of a magnetical connection since this would weaken the connection between the two parts of the hearing-aid glasses combination.

In D5 there is no incentive for the skilled person either to provide for a magnetical connection between earpiece and glasses temple which allows an electrical current to flow between the contacts since the glasses temple does not seem to include any electrical components.

In D6 there is no incentive either for the skilled person to make the electrical connection between the glasses temple and the components of the hearing aid disconnectable.

D7 and D8 are background documents illustrating the use in audio applications of a magnetic connection which simultaneously establishes an electrical

connection.

Furthermore, combination of any of the documents cited in the international search report and general knowledge does not lead to the subject matter of the independent claims 1 and 17 either.

- 3.6 The claims 2-16 and 18-22 are dependent on respectively claims 1 and 17 and therefore also fulfil the requirements of the PCT with respect to novelty and inventive step.
4. Claims 1-22 fulfill the requirement with respect to industrial applicability, Art. 33(4) PCT, for obvious reasons.

III. Negative opinion with respect to claims 66-71 (invention vi)).

1. Prior art.

Reference is made to the following documents:

D9: WO2004/084582
D10: WO0215320

2. Lack of inventive step.

The present application does not meet the criteria of Article 33(1) PCT, because the subject matter of claims 66-71 does not involve an inventive step in the sense of Article 33(3) PCT.

2.1 Independent claim 66:

The document D9 discloses (the references in parentheses applying to this document):

A method of giving a command signal to a hearing aid arrangement comprising a rechargeable battery (p. 7, l. 10-17), the method comprising:

providing a charging voltage to said rechargeable battery (p. 6, l. 20 - p. 7, l. 17)
deriving from a DC voltage of the rechargeable battery a command signal during the charging process (p. 7, l. 10-17).

The claim differs from the closest prior art in that the claimed process derives the command signal from the charging voltage instead of from the DC voltage of the battery.

However, from D10 (p. 5, l. 19-24) it is clear that during the charging process the DC voltage of the battery and the charging voltage are closely related. Therefore, it would be a matter of workshop modification to derive a command either from the DC voltage of the battery during the charging process or from the charging voltage itself.

2.2 Independent claim 69.

This claim essentially specifies an apparatus claim corresponding to the method claim 66 in that it provides a structural feature for each respective method step of claim 66. The subject matter of claim 69 is therefore not inventive for the same reasons as set out with respect to claim 66.

2.3 Dependent claims.

Claims 67 and 70: see D9 (p. 7, l. 15-17).

Claims 68 and 71: see D10 (p. 5, l. 11-18).

3. Industrial applicability.

Claims 66-71 fulfill the requirement with respect to industrial applicability, Art. 33(4) PCT, for obvious reasons.

Re Item VII: Form or content of the application

Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1, D3, D5 and D7 is not mentioned in the description, nor are these documents identified therein.

Re Item VIII: Reasoned statement with regard to clarity, Art. 6 PCT.

Although the apparatus claims 1 and 17 have been drafted as separate independent claims, these apparatus claims appear to relate effectively to the same subject-matter and to differ from each other only with regard to the definition of the subject-matter for

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/NL2006/050123

which protection is sought and/or in respect of the terminology used for the features of that subject matter. The aforementioned claims therefore lack conciseness and as such do not meet the requirements of Article 6 PCT.

PATENT COOPERATION TREATY

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Date of mailing
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FOR FURTHER ACTION
See paragraph 2 below

International application No.
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International filing date (day/month/year)
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Priority date (day/month/year)
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International Patent Classification (IPC) or both national classification and IPC
INV. H04R25/00 G02C11/06 H02J7/02 H05K5/00

Applicant
VARIBEL B.V.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☒ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☒ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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Date of completion of
this opinion

see form
PCT/ISA/210

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/NL2006/050123

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:

- ☒ the international application in the language in which it was filed
- ☐ a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).

2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material:

- ☐ a sequence listing
- ☐ table(s) related to the sequence listing

b. format of material:

- ☐ on paper
- ☐ in electronic form

c. time of filing/furnishing:

- ☐ contained in the international application as filed.
- ☐ filed together with the international application in electronic form.
- ☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/NL2006/050123

Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of

☐ the entire international application

☒ claims Nos. 73

because:

☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international search (*specify*):

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed (*specify*):

☒ no international search report has been established for the whole application or for said claims Nos. 73

☐ a meaningful opinion could not be formed without the sequence listing; the applicant did not, within the prescribed time limit:

☐ furnish a sequence listing on paper complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Searching Authority in a form and manner acceptable to it.

☐ furnish a sequence listing in electronic form complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Searching Authority in a form and manner acceptable to it.

☐ pay the required late furnishing fee for the furnishing of a sequence listing in response to an invitation under Rules 13ter.1(a) or (b).

☐ a meaningful opinion could not be formed without the tables related to the sequence listings; the applicant did not, within the prescribed time limit, furnish such tables in electronic form complying with the technical requirements provided for in Annex C-bis of the Administrative Instructions, and such tables were not available to the International Searching Authority in a form and manner acceptable to it.

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in electronic form only, do not comply with the technical requirements provided for in Annex C-bis of the Administrative Instructions.

☐ See Supplemental Box for further details

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/NL2006/050123

Box No. IV Lack of unity of invention

1. ☒ In response to the invitation (Form PCT/ISA/206) to pay additional fees, the applicant has, within the applicable time limit:
- ☒ paid additional fees
 - ☐ paid additional fees under protest and, where applicable, the protest fee
 - ☐ paid additional fees under protest but the applicable protest fee was not paid
 - ☐ not paid additional fees
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rule 13.1, 13.2 and 13.3 is
- ☐ complied with
 - ☒ not complied with for the following reasons:
see separate sheet
4. Consequently, this report has been established in respect of the following parts of the international application:
- ☐ all parts.
 - ☒ the parts relating to claims Nos. 1-22, 66-71, 72

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	<u>1-22, 66-71</u>
	No: Claims	<u>72</u>
Inventive step (IS)	Yes: Claims	<u>1-22</u>
	No: Claims	<u>66-71, 72</u>
Industrial applicability (IA)	Yes: Claims	<u>1-22, 66-71, 72</u>
	No: Claims	

2. Citations and explanations

see separate sheet

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/NL2006/050123

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item IV Lack of unity of invention.

1. Prior art.

The following documents are referred to in this communication; the numbering will be adhered to in the rest of the procedure:

D1: WO9711574

D2: US3119903

D3: US3825700

D6: US2003/0156725

2. Lack of unity, R. 13.1 PCT.

The application does not fulfil the requirements with respect to unity of the invention for the following reasons.

- 2.1** There are 12 independent claims: 1 (apparatus), 17 (apparatus), 23 (apparatus), 24 (apparatus), 35 (apparatus), 37 (apparatus), 48 (apparatus), 61 (method), 65 (apparatus), 66 (method), 69 (apparatus) and 72 (method).

With respect to claim 72, the only technical subject matter contained in this claim is the provision of a hearing-aid glasses frame with lenses. For obvious reasons, this subject matter is not new, Art. 33(2) PCT.

- 2.2** For the assessment of unity, the remaining 11 independent claims (1, 17, 23, 24, 35, 37, 48, 61, 65, 66, 69) must be taken into consideration.

The common concept linking together the group of claims 1 and 17 with any of the other independent claims concerns at most a glasses temple which is connected to electric components (e.g. of a hearing aid). This common concept is, however, not new, Art. 33(2) PCT, with respect to D1 or D6. These documents show a hearing-aid/glasses arrangement in which a pair of earpieces can be connected to a pair of eyeglass temples (D1: Fig. 8; p. 18, l. 13 - p. 9, l. 10 | D6: para. [0014] and [0034]-[0037]).

The common concept linking together claim 23 and any of the other independent

claims concerns at most a connector housing which is designed to be attached to an earpiece. Such a connector housing is well-known from D2 (Fig. 2, connector to earpiece 164).

The common concept linking together claim 24 and any of independent claim 48, the group of claims 61 and 65, claim 66 or claim 69 concerns at most a glasses temple with a chargeable battery, which is well-known in the art, see e.g. D3 (col. 3, l. 15-30).

The common concept linking together the group of claims 35 and 37 with any of independent claim 48, the group of claims 61 and 65, claim 66 or claim 69 concerns at most a hearing aid glasses arrangement with a chargeable battery, which is well-known in the art, see e.g. D3 (col. 3, l. 15-30).

The common concept linking together independent claim 48 and any one of the group of claims 61 and 65, claim 66 or claim 69 concerns at most a hearing aid glasses arrangement, which is well-known in the art.

The common concept linking together the group of claims 61 and 65 with either one of claim 66 or claim 69 concerns at most a hearing aid, which is well-known in the art.

2.3 Hence, the examining division considers that the following separate inventions, making a contribution over the prior-art documents D1, D2, D3 or D6, are not so linked as to form a general inventive concept:

- i) claims 1-22
a first and a second connector housing of a connector assembly for connecting an earpiece to a glasses temple are connected via magnetic contact members which allow an electrical current to flow between them.
Object: allow for a disconnectable mechanical connection between earpiece and glasses temple which also provides for a reliable electrical connection (see also description p. 1, l. 32 - p. 2, l. 14 and p. 10, l. 25-32).
- ii) claim 23
a speaker is resiliently connected to a connector housing via two resilient

sleeves.

Object: reduce mechanical feedback (see also description p. 16, l. 1-15).

iii) claims 24-47

a cradle set having a transformer to charge the batteries of the hearing-aid glasses, which cradle set is adapted to receive a temple of the hearing-aid glasses.

Object: make the charging process of hearing-aid glasses having rechargeable batteries easier (see also description p. 3, l. 1-5).

iv) claims 48-60

the glasses temple comprises a metal plate.

Object: to protect the electric components of the hearing-aid glasses (see also description p. 4, l. 4-12).

v) claims 61-65

update of the programming of hearing-aid glasses via telecommunication devices.

Object: allow to spread available updates of hearing-aid programs in an easy way (see also description p. 4, l. 14-18).

vi) claims 66-71

derivation of commands in a hearing aid with a rechargeable battery from a charging voltage.

Object: provide for an easy means to restart a rechargeable hearing aid (see also description p. 30, l. 10-20).

None of the inventions i)-vi) as listed above has a special technical feature which is the same as that of any other one of the inventions i)-vi). A comparison of the objects listed above and associated to each one of the inventions i)-vi) shows that there is no common or corresponding technical effect between the inventions, so that the special technical features of each one of the inventions i)-vi) fail to demonstrate a correspondence with the special technical features of any other one of the inventions i)-vi), in disagreement with the requirements of R. 13.1 and 13.2 PCT. Hence there is

lack of unity, R. 13.1 PCT.

Re Item V

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

I. Negative opinion with respect to independent claim 72.

Concerning independent claim 72 the only technical subject matter contained in this claim is the provision of a hearing-aid glasses frame with lenses. For obvious reasons this subject matter is not new, Art. 33(2) PCT.

II. Positive opinion with respect to claims 1-22 (invention i)).

1. Reference is made to the following documents:

D1: WO 97/11574
D2: US 3 119 903
D3: US 3 825 700
D4: US 2005/074137
D5: US 5 327 178
D6: US 2003/156725
D7: WO 97/05673
D8: WO 03/084004

2. Independent claims 1 and 17 of the application relate to a disconnectable connection between an earpiece of a hearing aid and a glasses temple.

3.1 The document D1 is regarded as being the closest prior art to the subject matter of independent claims 1 (apparatus) and 17 (apparatus). This document shows a hearing-aid/glasses arrangement in which a pair of earpieces can be connected in a disconnectable way to a pair of eyeglass temples (Fig. 8; p. 18, l. 13 - p. 9, l. 10).

3.2 The subject matter of claims 1 and 17 differ from the hearing aid glasses of D1 in that the claimed connector assembly comprises magnetic contact members which allow

an electrical current to flow between them. In the configuration of D1 (see p. 19, l. 1-10), the connection between earpieces and temples can be made via a magnet but there is no disclosure that this connection allows an electrical current to flow.

- 3.3 The subject matter of claims 1 and 17 is therefore new, Art. 33(2) PCT.
- 3.4 The problem solved by the present application can be formulated as how to provide for a mechanical connection which also ensures a proper electrical contact.
- 3.5 The solution which is specified in claims 1 and 17 in order to solve this problem is inventive, Art. 33(3) PCT, for the reason that none of the documents cited in the international search report points in the direction of combining the features as mentioned in point 3.2. In particular:

In D1 itself or in D4 there is no incentive to provide for the possibility of letting an electrical current flow through the magnetic contacts because all electronic components are accommodated in the behind-the-ear module of the hearing-aid temples combination.

In D2 or D3 the skilled person would refrain from replacing the mechanical connection by means of a magnetical connection since this would weaken the connection between the two parts of the hearing-aid glasses combination.

In D5 there is no incentive for the skilled person either to provide for a magnetical connection between earpiece and glasses temple which allows an electrical current to flow between the contacts since the glasses temple does not seem to include any electrical components.

In D6 there is no incentive either for the skilled person to make the electrical connection between the glasses temple and the components of the hearing aid disconnectable.

D7 and D8 are background documents illustrating the use in audio applications of a magnetic connection which simultaneously establishes an electrical

connection.

Furthermore, combination of any of the documents cited in the international search report and general knowledge does not lead to the subject matter of the independent claims 1 and 17 either.

- 3.6 The claims 2-16 and 18-22 are dependent on respectively claims 1 and 17 and therefore also fulfil the requirements of the PCT with respect to novelty and inventive step.
4. Claims 1-22 fulfill the requirement with respect to industrial applicability, Art. 33(4) PCT, for obvious reasons.

III. Negative opinion with respect to claims 66-71 (invention vi)).

1. Prior art.

Reference is made to the following documents:

D9: WO2004/084582
D10: WO0215320

2. Lack of inventive step.

The present application does not meet the criteria of Article 33(1) PCT, because the subject matter of claims 66-71 does not involve an inventive step in the sense of Article 33(3) PCT.

2.1 Independent claim 66.

The document D9 discloses (the references in parentheses applying to this document):

A method of giving a command signal to a hearing aid arrangement comprising a rechargeable battery (p. 7, l. 10-17), the method comprising:

providing a charging voltage to said rechargeable battery (p. 6, l. 20 - p. 7, l. 17)
deriving from a DC voltage of the rechargeable battery a command signal during the charging process (p. 7, l. 10-17).

The claim differs from the closest prior art in that the claimed process derives the command signal from the charging voltage instead of from the DC voltage of the battery.

However, from D10 (p. 5, l. 19-24) it is clear that during the charging process the DC voltage of the battery and the charging voltage are closely related. Therefore, it would be a matter of workshop modification to derive a command either from the DC voltage of the battery during the charging process or from the charging voltage itself.

2.2 Independent claim 69.

This claim essentially specifies an apparatus claim corresponding to the method claim 66 in that it provides a structural feature for each respective method step of claim 66. The subject matter of claim 69 is therefore not inventive for the same reasons as set out with respect to claim 66.

2.3 Dependent claims.

Claims 67 and 70: see D9 (p. 7, l. 15-17).

Claims 68 and 71: see D10 (p. 5, l. 11-18).

3. Industrial applicability.

Claims 66-71 fulfill the requirement with respect to industrial applicability, Art. 33(4) PCT, for obvious reasons.

Re Item VII: Form or content of the application

Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1, D3, D5 and D7 is not mentioned in the description, nor are these documents identified therein.

Re Item VIII: Reasoned statement with regard to clarity, Art. 6 PCT.

Although the apparatus claims 1 and 17 have been drafted as separate independent claims, these apparatus claims appear to relate effectively to the same subject-matter and to differ from each other only with regard to the definition of the subject-matter for

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

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which protection is sought and/or in respect of the terminology used for the features of that subject matter. The aforementioned claims therefore lack conciseness and as such do not meet the requirements of Article 6 PCT.